

## What is a watershed? What is JAG?

JAG welcomes  
Community Input  
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### Definitions

**leachate** - a liquid that is formed by the drainage of landfill fluids, ashes, hazardous wastes, etc. through soil. The leachate carries toxins throughout a watershed area.

**groundwater** - water beneath the surface of the ground which is the source for household wells and municipal water supplies.

**PCBs** - stands for polychlorinated biphenyls. This is a family of man-made chemicals which are no longer manufactured. Ways of being exposed include:

- \*pathways from toxic waste sites containing PCBs
- \*leaks from electrical transformers containing PCBs
- \*improper dumping of PCB containing waste
- \*old florescent light fixtures
- \*electrical devices or appliances made before PCB use was stopped.

**PAHs** - stands for polynuclear aromatic hydrocarbons. This is a group of chemicals formed during the incomplete burning of coal, oil and gas, garbage or other organic substances. PAHs can be man-made or occur naturally. Ways of being exposed include:

- \*PAHs attached to dust or other particles in the air
- \*vehicle exhaust, asphalt roads, wildfires, agricultural burning and hazardous waste sites
- \*tobacco smoke and smoke from wood heat in the home
- \*workplaces such as coal-tar plants, coking plants, trash incinerators, smoke houses and similar operations

# JAG

A vision of promise for the Muggah Creek Watershed

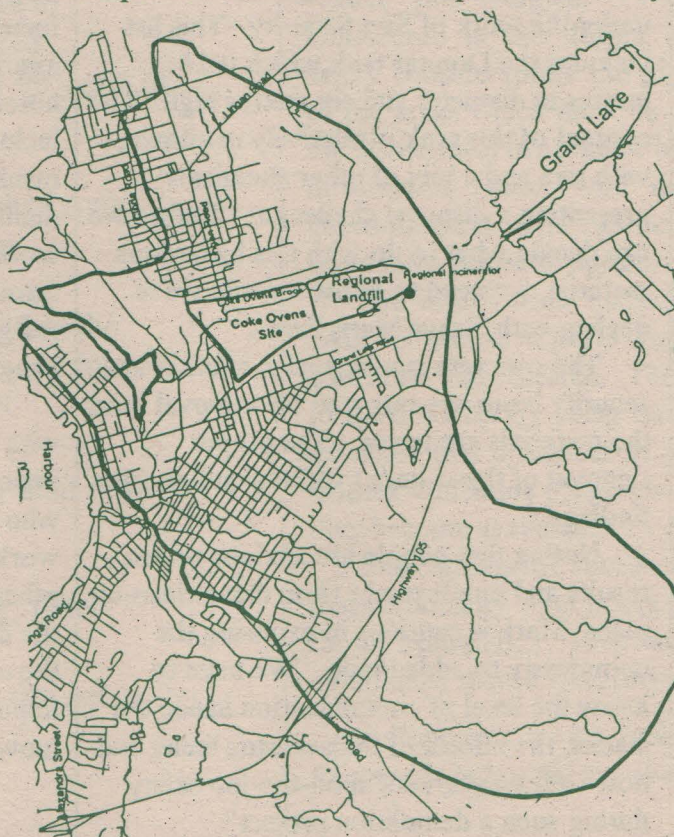
## It's a new title for some: The Muggah Creek Watershed. What does it mean?

The Tar Ponds is only one of fourteen areas slated for clean-up, according to the Joint Action Group (JAG). The hazardous by-products resulting from over 90 years of steel-making have affected the entire Muggah Creek Watershed.

"It is important to care for all sites within the watershed to help restore a balance in our environment", says Mike Britten, chair of the JAG committee responsible for data collection. "There are many factors contained in the watershed which will continue to be environmental hazards unless considered as part of the Tar Ponds clean-up".

A watershed is the area of land from which water drains into one river, stream or brook. Clean water is critical to the health of our community. Hazardous wastes, landfill materials, and ash are examples of materials that can leach toxins into water supply.

Therefore, the Domtar site, the former Coke Ovens site, the Tar Ponds, the Marsh Dump and the ash bed must be part of the study area.



The Muggah Creek  
Watershed



# What is JAG? How can I get involved?

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*What is JAG? It is a message to people everywhere that Cape Bretoners' care!*

Cape Breton communities have been expressing environmental concerns since the discovery of PAHs in Sydney harbour in 1981. This concern has become a grass-roots effort known as the Joint Action Group (JAG) on Environmental Clean-Up.

In August 1996, government officials met with

community representatives to design a strategy to clean up the Muggah Creek Watershed area. The original group was asked to plan for plenty of community involvement to ensure decision making that reflects the many concerns of the entire community. From this community-based vision, JAG was formed.

JAG's mission: To educate, involve and empower the community through partnerships, to determine and implement acceptable solutions for

Canada's worst hazardous waste site and to assess

*You don't have to be a scientist to take part in the JAG. If you care, you are qualified.*

and address the impact on human health.

These partnerships are still being developed and the goal of widespread community involvement is becoming a reality. Community groups, working

professionals, environmental groups, parents, health organizations, representatives from the three levels of government and concerned citizens have come forward.

"By taking control over the decisions that will affect us most, we show our pride and commitment to health, growth and prosperity in our communities," says JAG chair Dr. Carl (Bucky) Buchanan.

## Site Security Working Group Prepares to Meet Challenges

The people of Cape Breton have targeted the Sydney Tar Ponds for many years. But, for the community's Joint Action Group (JAG), concerns have broadened to include the Domtar site and the former Coke Ovens site for a number of site security reasons.

*"Site security is about improving safety of the site not only by removing chemical hazards, but also reducing the danger of accidents and investigating the risks to pedestrian traffic", says chair of the JAG's site security working group, Mark Ferris.*

The Domtar and Coke Ovens sites alone contain fourteen areas being examined under the work of Site Security. This list includes the Domtar tank which is 28 metres in diameter and six metres high. The content of this tank is relatively unknown, with tars and a mix of other chemicals presenting a disposal challenge. "Before we can decide what to do with this hazardous material, we need to know the mix we're dealing with," says Mark Ferris.

The concrete smokestacks, another site security issue, are targeted for removal once the materials are tested. The proper removal of these stacks will depend on such findings.

Noting that people are anxious to see results and employment from these clean-up plans, Mark is cautious in exposing the community to added risk. "We have to know the level of contamination inside the stacks, the effects of the asbestos lining and how to train workers in on-the-job safety during such a demolition project".

Parents, educators and teenagers are targeted for awareness programs focusing on site security, since an assortment of physical hazards are noted on the Coke Ovens site, including deteriorating buildings, manholes and culverts, and piles of demolition debris. The site security working group has also noticed graffiti throughout the site, suggesting that the grounds may serve as a teen hangout.

Public input on site security, as with all JAG initiatives, is especially important. The community residents who see the site, use it as a walkway, worked there, played there and have other personal experiences, can help the discovery process. This will allow the community to decide the most important and pressing concerns and move to address them.



## JAG Meets the Experts on Fact Finding Trip

### FAST FACTS

- Cape Breton was chosen as a site for steel making in 1899 because coal was easily accessible.
- By 1912, nearly half of all the steel produced in Canada was made in and around Cape Breton.
- In 1947, the Coke Ovens alone employed 400 people.
- High concentrations of PAHs in lobsters forced the closure of the lobster fishery in the Southwest Arm of Sydney Harbour in 1982.
- Muggah Creek is the receiving body for over 30 sewage outfalls.
- The Tar Ponds contain close to 700,000 tons of contaminated sediment, the result of over 90 years of steel making.
- The Muggah Creek Watershed spans a distance of 24.44 kilometers.
- Contaminated sediments within the Tar Ponds are between one and four metres thick.
- The last Coke Oven battery shut down on February 4, 1988.
- JAG was formed in August, 1996.
- Did you know that anyone can get involved in JAG?

JAG has taken a vital step towards designing studies related to the Tar Ponds and surrounding areas and their effect on health in Cape Breton communities. Four representatives of the community-driven JAG met with experts at the Agency for Toxic Substances and Disease Registry (ATSDR) in Atlanta, Georgia. The world renowned agency is responsible for a number of health studies and public education initiatives at hazardous waste sites across the United States.

"ATSDR will serve as a mentor to JAG as we begin intensive studies to assess the health concerns of our people," says Mike Britten, chair of the JAG working group responsible for environmental data gathering and research. "The wealth of experience at ATSDR is what we need to ensure our studies are designed to work with the community," he adds.

Don MacPherson, a retired steelworker and member of the JAG's working group assigned to health studies, was part of the fact-finding mission in Atlanta. He was impressed with ATSDR's commitment to see the JAG through this important research phase. "As a community group, we are qualified to ask questions about health risks and cancer rates," he says "but we need the experts to help us find the answers".

ATSDR confirmed that characteristics of the sites within the Muggah Creek Watershed must be considered in the design of studies. Contaminants, safety considerations and physical structures are a few of the areas which must be assessed. Lifestyle factors are also critical in accurate health research. This strong information base will determine the focus for environmental data gathering, health studies and eventually, remedial options.

The information exchange with ATSDR allowed JAG to secure reports and models outlining public education and research. This information will be added to the JAG library being compiled for public use. It is expected that a number of people will review the case studies, education programs and technical reports when they become available.

Case studies of successful clean-up projects show that community input is key. The JAG is encouraged by these examples. They act as testimonials to the community driven JAG process.

*Cape Bretoners are the stakeholders and have the most to contribute to effective decision making.*



## Open and Transparent... JAG's Guiding Principles

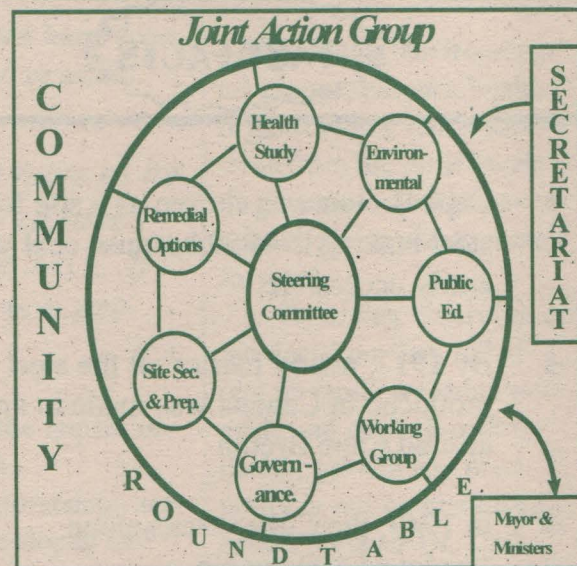
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Over 50 community representatives sit at the Roundtable of the Joint Action Group (JAG) on Environmental Clean-Up. If you include the active members of JAG's working groups, the number of people taking part in the decision making totals almost 100! As chair of JAG's Governance working group, Jerry Ryan would like to see this continue to grow.

"We are working to get all areas of the community involved, including seniors, educators, businesses, health and environmental groups and citizens at large."

The first step in gaining such widespread participation is to develop an open membership structure. Defining its philosophy as 'open and transparent', JAG is committed to "educate, involve, and empower the community, through partnerships, to determine and implement acceptable solutions for Canada's worst hazardous waste site and to assess and address the impact on human health."

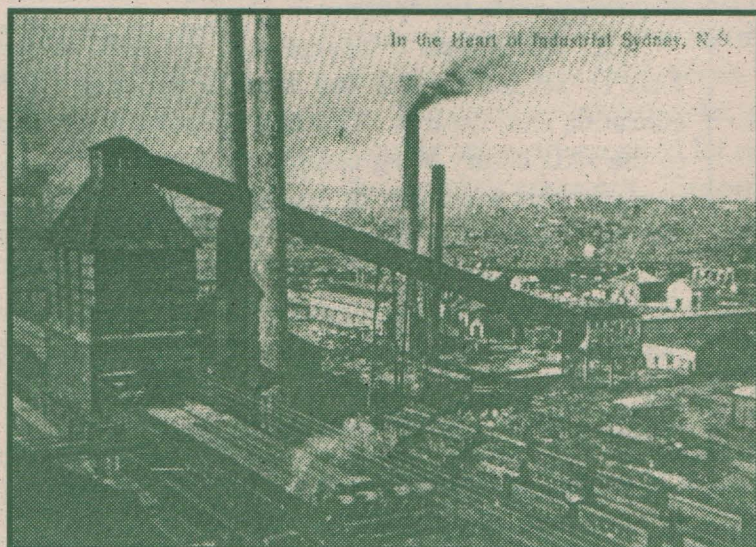
This goal depends on input from the many community groups, parents and concerned citizens who are the stakeholders of the environmental health of our area. Mr. Ryan reminds people that this is more than a call for critics, it's a call for active support.



*The membership structure is working. People from all areas of the community are coming forward, sharing their ideas, and listening to others.*

## Community Album

Steel making has been part of Cape Breton's culture for almost 100 years! At one time, Sydney was referred to as the "Industrial Heart of the Maritimes". With the industrial upswing came the pollution that resulted in the Tar Ponds. Along with the Tar Ponds, the areas within the Muggah Creek Watershed are the focus of JAG's clean-up plan. Show us the way you remember the Coke Ovens Brook, the shift change at Sydney Steel, the fiery glow of the Coke Ovens. We welcome your side of the story. Whether you have a photo, story or sketch, we invite your input!



*A reproduction of an old postcard showing the Coke Ovens, where the coal was burned with little or no oxygen to convert it to coke for use in the blast furnaces.*

John Q. Public  
Our Town



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